CLASSIFICATION CONFIDENTIAL

CENTRAL INTELLIGENCE AGENCY
INFORMATION FROM
FOREIGN DOCUMENTS OR RADIO BROADCASTS

REPORT

CD NO.

50X1-HUM

COUNTRY USSR

SUBJECT Economic - Logging

HOW PUBLISHED Monthly periodical

WHERE PUBLISHED Moscow

DATE PUBLISHED Jul 1949

LANGUAGE Russian

DATE OF INFORMATION 1949

DATE DIST. 28 Nov 1949

NO. OF PAGES 4

SUPPLEMENT TO REPORT NO.

THIS IS UNEVALUATED INFORMATION

SOURCE Lesnaya Promyshlennost', No 7, 1949.

HOW THE MODERN LOGGING BRIGADE WORKS; RECENT DEVELOPMENTS IN TIMBER INDUSTRY

Functions of Brigade in Continuous Method of Logging

The Timiryazevskiy Model-Experimental Timber Management carries on logging operations on pine land with resources of 200 cubic meters per hectare. It hauls its logs by narrow-gauge railroad to the bank of the Tom River. There they are delivered to a wood-transporting combine located on the opposite shore, in rafts tugged across the river during the summer and by cable-drawn sled during the winter.

The continuous method was inaugurated at the timber management in December 1948. The author was entrusted with the task of organizing the enterprise to operate according to the new method.

Within 5 days after conversion to the continuous method, labor productivity rose 20-30 percent. In the first quarter of 1949, 62 percent of the management's production program for the entire year was fulfilled. Average output during the quarter for the complete production cycle was 2.5 cubic meters per man-day; for the felling, skidding, bucking, and loading operations, it was 3.9 cubic meters per man-day.

Up to 3 days is required for the complete production cycle from felling a tree to unloading the log on the bank of the Tom River.

The Badzheyskiy Timber Management of the Krasles Trust, the Nechunayevskiy Timber Management of the Novsibles Trust, and the Uybatskiy Timber Management of the Khakasles Trust are other West Siberian enterprises which operate with the continuous method and show results similar to those of the Timiryazevskiy Timber Management. All of these enterprises of Glavzapsibles (Main Administration of West Siberian Timber) are organized on the basis of complex brigades.

CLASSIFICATION CONFIDENTIAL

STATE	X	NAVY	X	NSRB		DISTRIBUTION							
ARMY	X	AIR	X	FBI									

A complex brigade performs a number of related tasks and is an easily controlled unit. The productive capacities of the sections performing subsequent operations are dependent on those of sections performing previous operations. A brigade carries out a cycle of operations from felling to loading the logs onto the cars of the logging railroad at the yarding point.

Each brigade consists of 25 - 28 men, divided into five sections:

1. Felling section of eight men: electric saw operator, assistant saw operator, worker with pant hook (valochnaya vilka), three branch trimmers, and two brush burners. A felling section produces from 120 to 130 cubic meters of logs per day.

2. The skidding section varies in size with the hauling distance. An average skidding section has two or three KT-12 tractors. Each tractor requires three workers, a tractor driver and two chokermen.

3. Bucking section of three men: electric saw operator, his assistant, and a laborer. They work at the yarding point next to the logging railroad.

4. Sorting section of two men: the two workers, each with a horse, sort the bucked logs into three groups, prop timber, other types of commercial timber, and firewood.

5. Loading section of six men: At present, loading onto logging train flat cars is performed manually since the timber management has no mechanical hoisting equipment. Introduction of single-drum hoists is being planned for loading.

Electrical mechanics and saw service men who work at the mobile electric power plant are not included in the composition of a brigade.

The duties of the supervisor of complex brigades include getting the work in the cutting area and at the yarding point started, assigning brigades to their proper places, seeing to it that technical performance standards are fulfilled and that safety rules are observed in all phases of operations, taking measures to assure uninterrupted continuous operations, and making standard reports on expenditures for operations and the output of all workers.

All inspection is carried on at the yarding point. As the logs are brought in by the skidding tractors, the inspector measures the diameter of the butt end of the logs and records the number of logs brought in according to thickness. On the basis of this data, the output of the fallers, branch trimmers, and brush burners is determined. The Ministry of Wood and Paper Industry USSR had decreed that output from these operations be determined on the basis of the number of individual logs felled. The inspector also measures the assized diameter, which is made 1.3 meters from the butt end, to determine the cubic content of the skidded logs. This measurement determines the output of the individual tractor operators.

After the bucking operation has been completed and the bucked logs loaded on flatcars, a second inspection is carried out. The results of this inspection form the basis for making out the reports on transport of timber and determine the output of the buckers, sorters, and loaders. They also serve the purpose of determining the total production of the tractor drivers. Logs not loaded are not credited toward the output of the sections engaged in skidding, bucking, sorting, and loading.

Final determination of the output of the tractor drivers on the basis of bucked logs permits precise computation of the results of skidding operations. The preliminary figures obtained by the second method of measurement noted above serve to establish the relative efficiency of individual tractor drivers. If the final figures after bucking do not agree with the preliminary figures before bucking, the difference is prorated among the drivers on the basis of their relative efficiency.

While the electrical mechanics who service the PES-12 power plant are not a part of the complex brigade, they get a pay bonus when they overfulfill their assigned tasks.

For every complex brigade, the following documents are made out daily: (1) report of expenditures for operations; (2) report on the number of trees felled in the cutting area, listed according to diameter of their butt ends; and (3) report on the quantity of timber loaded, in cubic meters.

Wages are paid to the workers by sections on the basis of these reports. Wages are computed for the sections twice each month. Within the sections, total wages for the section are distributed to the individual workers on the basis of wage-scale coefficients. -- Engr M. S. Miller, SibNIILKLE (Siberian Scientific Experimental Institute for Wood Economy and Wood Utilization)

The D-147 Scraper

Scrapers with cable control are being used more and more for construction of logging roads. When used in conjunction with bulldozers, mechanization of laborious earth-moving work is almost an accomplished fact.

The main features of the D-147 cable-controlled scraper, which is used for logging road construction, are as follows:

The scraper is a twin-axle machine on pneumatic tired wheels and is drawn by an S-80 tractor. Its scoop has a capacity of 6 - 8 cubic meters of earth. When moving earth for a distance of 600 - 800 meters, its productivity is between 200 and 250 cubic meters per shift.

The D-147 scraper has the following features:

Scoop capacity	6-8 cu m
Width of earth-cutting blade	2,590 mm
Maximum cutting depth	300 mm
Spreading depth	400 mm
Distance between front wheels	1,640 mm
Distance between rear wheels	1,780 mm
Length	9,140 mm
Width	3,150 mm
Weight of empty scraper	7,200 mm

V. R. Krotov, chief engineer, Glavlestransstroy, Main Adm of Timber Transport Construction

Seagoing "Cigar" Rafts

Floating of timber in seagoing "cigar" rafts was initiated in 1945 on the Black Sea and has been successfully carried on since that time.

These rafts were planned in two sizes. The smaller were to have a cubic content of 2,000 cubic meters, be 72 meters long, 12 meters wide, and 6 meters high. The larger were to be 3,000 cubic meters in volume, 100 meters long, 12 meters wide, and 7.2 meters high.

In practice, the cubic content of small rafts varied between 1,800 and 2,000 cubic meters, of large rafts, between 2,800 and 3,000 cubic meters. Their beam ranged up to 14 and 15 meters, their freeboard between 5 and 6.5 meters, and their draft between 2.5 and 3.5 meters.

A brigade of 50 - 60 men is needed to construct a cigar raft.

The following table indicates the progressive efficiency which has been attained since 1945 in the construction of these rafts:

Type	No of Workdays per Raft			Av Production per Man-day (cu m)		
	1945	1946	1947	1945	1946	1947
Large	18.4	12.3	13.4	2.94	3.90	4.02
Small	15.0	10.7	9.4	2.47	3.67	3.70

Completed rafts are tugged on the Black Sea either singly or by twos, by 750 - 1,500-horsepower seagoing tugs or freighters.

Tugging of cigar rafts during the fall season frequently continued even in very stormy weather. Nevertheless, all rafts arrived at their destinations without accident and without additional strengthening.

Brigade Leaders Report Progress

At a conference, held in the city of Arkhangel'sk, of supervisors of continuous method brigades working in Arkhangel'sk Oblast, M. A. Zav'yalov, chief engineer of Dvinoles Trust, reported that three types of brigades are active in his trust: brigades of 24 - 30 men, doing their skidding with tractors; brigades of 14 - 16 men, skidding with winches; and brigades of 20 men, skidding with horses on log slides or log roads.

N. V. Novosel'tsev, chief engineer of Severanles Trust, reported that mechanized continuous brigades have begun work in the logging enterprises of his trust. During the 1948-1949 season, the number of continuous complex brigades increased from seven to 17.

- E N D -